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BULLETIN OF THE
U.S. DEPARTMENT OF AGRICULTURE

No. 146

Contribution from the Office of Markets, Charles J. Brand, Chief.
September 25, 1914.

ECONOMIC CONDITIONS IN THE SEA ISLAND COTTON INDUSTRY.

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INTRODUCTION.

At the request of the farmers living in the neighborhood of Charleston, S. C., forwarded through the Chamber of Commerce of Charleston to the Department of Agriculture, an investigation of the market and economic conditions in the Sea Island cotton industry was made by the Office of Markets during August and September, 1913. The extremely low price that prevailed, which was probably below the cost of production, the large stock carried over into the succeeding year in spite of the very small crop, the indifference of buyers due to lack of orders, indicated a condition of crisis which called for a thorough examination of, and an impartial report on, the condition of the industry. The field of this investigation was not limited to Charleston and the islands adjacent thereto, but was extended to include the Sea Island cotton districts of Georgia and Florida and to nearly all the American mills that spin yarns from this kind of cotton. Although Carolina Sea Island cotton is nearly all exported, it was impracticable to visit foreign countries to interview the manufacturers using it, hence this report does not cover completely the consumption of the Carolina crop.

The object of this paper is to set forth as concisely as possible the results of this investigation. It is in no sense a treatise on agriculture.[1]

STATISTICAL REVIEW.

A study of the tables in the appendix to this report indicates that the unsatisfactory condition of the Sea Island trade was due to underconsumption rather than to overproduction. By reference to Tables I and III, it will be seen that the crop of 1911–12 was 122,744 bales,[2]

[1] Those interested in the agricultural phases of the subject are referred to Farmers' Bulletin 302, U. S. Dept. Agr., by W. A. Orton, entitled "Sea Island Cotton: Its Culture, Improvement, and Diseases."

[2] Gordon's figures obtained from Table I of appendix.

NOTE.—This bulletin discusses the economic conditions in the Sea Island cotton industry in South Carolina and the islands off the coast and also in portions of Georgia and Florida.

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averaging about 400 pounds each, which is next to the largest yield on record; that the average price per pound for Georgias and Floridas was 20.41 cents [1] and for South Carolinas 23.73 cents; that consumption was unprecedented at 123,145 bales,[2] and that the season ended with a small stock, 5,533 bales,[3] carried over.

The crop of 1912–13 was only 73,777 bales, averaging about 382 pounds each, of which only about 68,080 [3] reached the chief interior markets and seaports. The average price of Georgias and Floridas was 19.50 cents and for South Carolinas 25 cents. Consumption was only 58,019 bales,[2] and the stock at the end of the season stood at the highest figure on record, 15,639 bales.[3]

It will be noted that the crop of 1912–13 was, roughly, three-fifths of that of the preceding year, that prices were lower, and that exports decreased fully 20 per cent from those of the previous year. Attention is called especially to the fact that the American takings of Sea Island for 1911–12 were 102,846 bales,[3] against 41,899 [3] for 1912–13, a decrease of nearly 60 per cent within a year. When calculated on the percentage of the entire Sea Island crop purchased by American mills, the takings show 83.79 per cent for 1911–12 against 56.79 per cent during 1912–13.

EGYPTIAN COMPETITION.

A glance at Table IV, which shows the imports of Egyptians into the United States, will demonstrate that no great increase has been made in the importation of that cotton by domestic mills. While the year 1912–13 exhibits an increase of about 6,400 bales over the year before, imports are 1,548 bales less than in 1910–11. In other words, the importations of Egyptian cotton into the United States were practically uniform during the past three years.

As Egyptian bales usually weigh about 750 pounds each, while Sea Island bales average only 382, it is necessary to reduce both kinds of bales to a common unit of weight for the purposes of comparison and addition. Accordingly, the usual 500-pound bale has been adopted. Table V is presented in this connection and shows the actual consumption of the various commercial varieties of cotton in the United States for the years 1911, 1912, and 1913. It is difficult to reconcile this table with the tables showing spinners' takings, and no attempt is here made to do so, but the figures of Table V are accepted as true and accurate, as they were issued by the Census Bureau after careful investigation. From this table it may easily be determined that the total consumption of Sea Island and Egyptian for 1912–13 was 243,118 equivalent 500-pound bales, against 256,293 for the year 1911–12, thus showing a decrease of 13,175 bales in the consumption of extra-long staple in the United States during 1912–13.

[1] All figures, unless otherwise specified, are from Census Bureau.

[2] Obtained by adding American consumption and exports; Gordon's figures.

[3] Gordon's figures obtained from Table I of appendix.

During this same year the consumption of Egyptian increased practically 21,000 bales (500-pound equivalent), and consequently it may be concluded that not only the entire loss in consumption of extra-long staples but the increase in Egyptian was at the expense of Sea Island.

CAUSES OF DECREASED CONSUMPTION.

In looking for the causes of this lack of consumption many reasons have been advanced by those engaged directly in growing or in selling or in manufacturing Sea Island cotton. The reasons given by different interests sometimes conflict, and mistaken ideas have been advanced in a few instances, but there is substantial agreement among all interested parties as to the essential facts in the case.

There is room for a difference of opinion as to the relative importance of the different causes for the falling off in demand for extra-long staple, but it seems reasonable that all of the following causes have contributed toward the diminished use of Sea Island cotton:

(1) *The deadlock of 1912–13.*—In dealing in Sea Island cotton there is no "futures" market, as there is for Upland or Egyptian. Spinners desiring to purchase their supplies against sales of yarn, which are frequently made for a year in advance, must buy Sea Island cotton outright, or else find some dealer who is willing to assume that risk, and sell contracts for the delivery of a definite number of bales per month during the time covered by the agreement.

In September and October of 1912, early in the cotton season, spinners were buying Sea Island at the prices then prevailing, paying about 23 cents for Extra Choice Georgias. The demand was not strong, but the crop was late and there was no pressure to sell, so prices were easily maintained. Then in November came the Census Bureau's report indicating a crop of approximately 70,000 bales for the year. The better-informed farmers and small dealers decided that the crop was short and that the price would advance, so they resolved to hold for higher prices, which resulted in an immediate advance in the primary asking price of 2 or 3 cents per pound. Accordingly, the cotton buyers and exporters found themselves unable to buy cotton at the price which spinners were willing to pay, and they therefore refused to sell spots or to make contracts with mills for future delivery at the prices which millmen offered. In short, there developed a deadlock in the market beginning in November which lasted until early spring.

The spinners, who considered their margin of profit as already narrow, regarded this advance as an imposition on them by speculators and turned to other sources to look for their supply of raw material. They had already been experimenting with the new Egyptian variety known as Sakellaridis, and naturally turned to that and to brown Egyptian for their supplies of cotton. They bought

not only for their immediate needs, but in many cases for 6, 8, and 12 months in advance, thus closing the usual outlet for Sea Island.

There is no doubt that spinners felt that they had a just cause of complaint against the holders of Sea Island cotton, and that they acted more or less in the same way in protecting themselves from the danger which seemed to them to threaten their business, but sufficient evidence has not developed to sustain the charge that spinners united to fix prices. From their point of view, the spinners had Egyptian cotton offered in quantities to supply their year's needs and at prices and on terms more satisfactory than those offered by the holders of Sea Island, so the spinners bought the Egyptian cotton and left the holders of Sea Island free to find whatever market they could for their commodity. This market did not develop before the end of the season, September 1, 1913, and in spite of the short crop of only 73,777 bales, more Sea Island cotton than ever before was carried over into the new crop year.

(2) *The competition of Sakellaridis.*—Aside from any hitch in the usual methods of buying and selling Sea Island such as occurred during 1912–13, it was bound to meet sooner or later the competition of the new Egyptian variety known as Sakellaridis. This variety is more similar to Sea Island than are most other varieties of Egyptian cotton, and is more vigorous and productive than Sea Island. Its staple is about 1½ inches in length, and it is comparatively uniform; it is somewhat coarser than Sea Island and does not mercerize as well; it is harsher and less elastic, but it has fully as much strength as a good quality of Georgias and is decidedly stronger than the lower grades of American Sea Island. Where strength is the chief element to be desired in a yarn or cloth, as in sewing thread or tire cloth, Sakellaridis seems now to be preferred, but in mercerized goods and in high-grade hosiery and underwear Sea Island is still commonly used. At the beginning of the deadlock in November, 1912, Sakellaridis was about 2 cents cheaper than Sea Island; on August 30, 1913, it was being quoted at 3 cents above Georgias and Floridas. The following are some of the reasons given by spinners for preferring Sakellaridis to Sea Island:

(*a*) It is manufactured with less waste than the corresponding grade of Sea Island, usually some 4 or 5 per cent.

(*b*) It works better in the card room, but some spinners claim that this advantage is offset by less production in the spinning room.

(*c*) It makes stronger yarn and stronger cloth.

(*d*) It is bought on a net weight basis, and is paid for 10 days after the receipt of the cotton. Sea Island is sold on gross weight and usually f. o. b. cars at southern markets, with sight draft attached to invoice. This results in its being paid for about 30 days before it is received at the New England mills.

(*e*) Having once introduced Sakellaridis cotton to make a given line of goods, it is a hard matter to change to another cotton which may be just as good. The customer usually grows suspicious when the mill changes the appearance of its goods, and he must be argued with and coaxed into taking the goods. For this reason, if for no other, a mill prefers to run on the same kind of cotton all the time, and it is as difficult to turn back to Sea Island as it was to turn from Sea Island to Sakellaridis.

(3) *The deteriorated quality of Sea Island cotton.*—Another cause for the lessened use of Sea Island is that its quality is not so uniform and good as it was formerly. "It has run down." That it has deteriorated is admitted on all sides. There can be no question of the fact. Some of the causes of this deterioration are not hard to discover, while perhaps others have escaped notice. The most serious cause of deterioration in the interior regions has been the refusal of the Carolina growers to sell planting seed to others. This decision not to sell planting seed came about as the natural result of the situation in which the planters found themselves. In 1902 the culture of Sea Island cotton was introduced in the West Indies. Seed was bought from the best Carolina plantations, and some of the expert Carolina growers were hired to teach the people of St. Vincent, Antigua, the Barbados, and other islands how to raise and prepare this crop for market. The effort to grow the cotton in the West Indies was successful beyond expectations, and within five or six years the Carolina farmers commenced to feel the West Indian competition. They resolved to quit selling seed to anyone—not only to the West Indies, Florida, and Georgia, but also to their fellow islanders. The small farmer on the islands, if his seed was not good, could not buy the better quality or the more prolific seed of his neighbor. He was forced to plant such seed as he had, be it ever so inferior, or else to turn to Upland cotton or to truck crops. As a matter of fact, many farmers have turned largely to Upland cotton. James Island, S. C., had more than 100 acres planted in Upland cotton in 1913. Johns Island and Wadmalaw Island had more than half of their cotton land planted in Upland seed, and Edisto Island had nearly as much Upland as Sea Island planted. Here at the fountainhead of Sea Island culture short cotton had been introduced and was being grown in adjoining fields and in many instances in the same field. Cross pollenization by various means, including bees and other insects, rendered it practically impossible to keep varieties pure and up to the old high level of quality. No matter how careful and expert the Sea Island cotton planter might be, he labored under a serious handicap on account of the nearness on all sides to Upland short staple. The result has been, as was to be expected, a general deterioration in the quality, through hybridization, even in the most favored section of the Sea Island producing area.

The refusal of the Carolina planters to sell their seed to Georgia and Florida growers has likewise resulted in a general deterioration in the quality of the Sea Island cotton grown in those States, which is, in reality, 90 to 95 per cent of the Sea Island crop of the United States. It has been the custom for years for the farmers of this section to renew at least once in three years their planting seed with fresh stock from Carolina. They seemingly did not rely on a seed selection from their own fields to keep up or to improve the quality of their cotton, and it is even now commonly believed that "Sea Island runs out when planted in the interior or away from the islands of Carolina." There can be no question about the deterioration of Sea Island cotton when left alone under usual farm conditions or when no seed selections are made; but this deterioration is just about as marked on the islands of South Carolina when seed selection is neglected as it is in Georgia or Florida. Soil and climate, of course, influence the kind and amount of lint, but it seems that the chief element in determining the character of the product is the kind of seed planted.[1] The great difference in status between the Carolina planters on the one hand and those of Georgia and Florida on the other is primarily due to the fact that the former have practiced intelligent seed selection for many years, whereas the latter have been content to buy the best planting seed that was obtainable. About four or five years ago, when the Georgia and Florida growers found that they could no longer obtain fresh seed from Carolina a few of them began to make their own seed selections, with very gratifying results, as is shown by the fact that in 1912 one Florida farmer sold his cotton at 47 cents per pound, which surpasses the price paid for some of the extra fancy cottons marketed at Charleston.

But the great mass of Georgia and Florida farmers continued to plant such seed as they had or else the seed which they bought was of inferior quality, and the result has been a gradual reduction in the length, uniformity, and strength of the staple. Climatic conditions during the growing season of 1912 were adverse, and the quality of the cotton was still further lowered. To the New England spinner these are altogether undesirable qualities in cotton. They have meant to him a depreciated value for the home product and, as has been already shown, have rendered the introduction and substitution of Sakellaridis a matter easily accomplished.

(4) *Change in styles and enforced economy of production.*—"Troubles never come singly," and certainly this was true with the Sea Island trade during the year 1912–13. Aside from the troubles already enumerated, but possibly growing out of unsettled business conditions, there was another the influence of which it is hard to overestimate. This was the question of style, coupled with that of economy.

[1] Cook, O. F. The Relation of Cotton Buying to Cotton Growing, U. S. Department of Agriculture, Bulletin 60, p. 12.

Manufacturers reported that the style for women's dress goods had changed from soft, smooth, lustrous cloths, composed of fine yarns and of high counts per inch of both warp and woof, to coarser, rougher effects with fewer threads per inch in the woven fabric. On account of the change of style in women's wear, shirt-waist and petticoat makers had been almost driven out of business and no longer remained important factors as consumers of fine goods.

Such changes in style are of course reflected in the kind of cotton purchased and, as might be expected, the cheapest quality that will answer the purpose is generally bought. The result has been a gradual scaling down in the length of staple being used in the fine goods trade. The longest and finest cottons have felt the effect of this tendency most keenly and, compared with former standards of price, have been sold at the greatest sacrifice.

Closely associated with style is the insistent demand of those who place orders with mills for cloth that the price must be at the lowest possible quotation. In the sale of many lines of goods manufacturers reported that the price is the sole consideration, and the mill quoting the lowest price receives the contract regardless of the quality of its goods. As competition had been keen, mills were forced to accept these low-priced orders and had then striven to cheapen their product in order to make a living profit. The chief means of cheapening the cost of manufacture are the use of either cheaper raw stock or coarser yarns, or both of these ways combined. In many instances both of these remedies have been applied in the recent past, resulting in a coarser, rougher, and more porous style of goods. In a way this cheapening of the cost of production resulted in or helped toward the change of styles, as previously noted, as the arbiters of style are dependent upon goods they find at hand in sufficient quantities to give a ready supply of cloths for their requirements.

Another factor to be reckoned with in the cheapening of the cost of production is improved cotton-mill machinery. With the improvements of recent years, especially since the introduction of combers that can successfully comb even Upland cottons, manufacturers can use shorter staples in their product and still have it look sufficiently attractive to be accepted by the average purchaser. The large use of the shorter staples, especially of $1\frac{1}{16}$ and $1\frac{1}{8}$ inch cottons, for combing has correspondingly lessened the demand for the longer varieties, $1\frac{3}{16}$-inch and longer, and has been partly responsible for the lower prices at which the extra staple cottons have sold.

TIRE CLOTHS AN IMPORTANT EXAMPLE.

In the manufacture of automobile tire cloths the tendency to reduce the cost of production has been especially noticeable. Only a few years ago the best grades of Sea Island cotton were considered none too good for the purpose. Prices and quality were maintained, and

the tires were sold under a guaranty as to lasting qualities. Then came competition and a cheapened product. With retail prices for tires cut almost in half, the quality of the cloth used in making them has in most cases deteriorated, and the wearing qualities of the tires are frequently not guaranteed. It was reported as quite common in the manufacture of tire cloths for some mills to use the lowest grades of Sea Island or brown Egyptian. Upland long-staple and even $1\frac{1}{16}$-inch cotton were also being used to a degree for this purpose, and in one instance the substitution of comber waste from Sea Island cotton was reported. Sakellaridis and good quality Sea Island are still used to a limited extent in the manufacture of tire fabrics, but the bulk of this product is from the lower grades of the long staples, especially Egyptian.

This shifting of the tire-cloth trade largely to other cottons has almost closed the largest outlet for Sea Island consumption and is a serious menace to the very existence of the Sea Island industry. However, the final word has not yet been said in the tire-cloth business, and it is still possible that the wearing qualities of tires constructed from low grades of cotton will prove unsatisfactory to their users and that there will be a return to the old standard of quality in tires. Should such a demand spring up, it would probably mean a return to the more elastic and more pliable cloths made of high-grade Sea Island cotton formerly used in the manufacture of tire fabrics.

Briefly summarized, the market situation for the year 1912–13 was extraordinary. The next to the smallest crop for the past 15 years did not go into consumption, although the price was 1 cent per pound lower than that of the very large crop of the year before. Considering the size of the crop and the cost of production, the price was certainly low enough to warrant a sale, but Egyptian and Upland long-staple cottons acted as a substitute to such an extent that a very limited demand existed all the year for Sea Island. It is true that the quality of Sea Island has deteriorated within recent years, but possibly undue emphasis is laid on this derioration and not enough stress is put upon the many excellent qualities still to be found in Sea Island. Market conditions were affected by tariff changes and by changes in the style in women's wear and by changes in the fine-goods trade, and in all of these regards Sea Island cotton was the chief sufferer.

CONDITIONS AMONG PRODUCERS.

Turning from the unusual market situation which existed during the year 1912–13 in the Sea Island trade, it is necessary to consider some of the economic conditions and practices of those engaged in growing and handling this cotton. Here a distinction must be made between the "island," or South Carolina, planters and those in Georgia and Florida. Conditions in these two sections are so dissimilar that they must be dealt with separately.

CAROLINA CONDITIONS.

To understand the present situation among the Carolina Sea Island farmers, it is well to start with them in the days of their prosperity before the Civil War. Then they owned slaves and grew a fine grade of cotton, for which there was a ready sale generally at remunerative prices. They were prosperous and independent and as a rule shipped their cotton to factors in Charleston, who sold it on commission and paid the proceeds over to the farmer, or acted in the capacity of a bank for him and paid his checks when presented. After the war the negroes did not desert the plantations, but as a rule continued to work on the farms, and many are still working there, on the "task" system of slavery days. In financing their business after the Civil War the planters naturally turned to their old friends, the factors, who continued to advance them on open account the money and supplies necessary to make the crop.

To make a long story short, the Civil War was only an interruption in the island farmer's business. He continued to raise cotton with free labor instead of slave, but otherwise there were but slight changes.

During the years from 1865 to 1880 the prices for Carolina cotton were profitable, and South Carolina raised more than one-third of the total Sea Island crop. Its average production was somewhat less than that of Florida, but was far in excess of that of Georgia. This lead over Georgia was maintained until 1889. During these years the importations of Egyptian cotton were almost negligible, and American markets set the price for extra long-staple cotton.

As long as Charleston and Savannah continued to be the chief markets for extra staple cotton, prices remained reasonably satisfactory to the farmers. But with the rapid increase in the Georgia crop and with the great increase in the quantity of long staple grown in Egypt, these cities lost their prestige as long-staple markets and no longer fixed the price for this kind of cotton. With a change in buying methods, accompanied by the rise of interior markets for Sea Island, the price began to fluctuate between wide limits, but as a rule it has been much below the farmer's idea of value. This decline in price at Charleston did not bring about better methods of farming or any visible cheapening of production, but, on the contrary, the cost of production has constantly tended upward over the Sea Island area, as it has done for other commodities over the rest of the Union, until now the cost of growing Sea Island is fully 50 per cent higher than it was in 1896. The increased cost and lower selling prices have resulted in most cases in the farmers becoming involved in debt to the factors. Indeed, it is commonly reported that fully 80 per cent of the Carolina Sea Island crop is now raised on money advanced by factors, and in many instances in the past three years each succeeding crop, instead of reducing, has added to

the farmer's debt. At current prices, the crop of 1913 was probably no exception to the rule, and left the producers poorer for having grown it.

THE SYSTEM OF MARKETING AT CHARLESTON.

The structure of the market system at Charleston is the same now that it has been for many years, and is similar to that formerly found at most of the other leading cotton markets. It consists of cotton buyers, factors or commission merchants, and warehousemen. The buyer at Charleston does not buy from the farmer, but only from the factor. In theory the factor acts as the selling agent for the farmer and receives a commission on sales. He never sells directly to the mills, but only to cotton buyers. But, in fact, the chief business of the factor is to advance money and supplies to farmers to enable them to make their crops and to collect these accounts when due. He is the money lender and is indispensable when the farmer is in debt or has insufficient capital for the year's needs. The number of acres planted in cotton by a man measures in a rough way the amount of the advances a factor is willing to make to him on his crop, and this fact accounts for the persistence of many in growing cotton under present low prices. Warehousemen simply receive a storage fee and are not concerned in the actual buying or selling of cotton. The system is good in theory, and was formerly much more general, but its inflexibility is regrettable, and in many cities outside of the Sea Island section this has led to great changes in practice or to the entire abandonment of the system.

There are some unfortunate conditions and practices existing in and around Charleston which are detrimental to the Sea Island trade. These have the sanction of precedent or custom and are therefore hard to change or eradicate.

CENTRALIZATION OF MARKET CONTROL AT CHARLESTON.

Perhaps one of the most notable of the local conditions is the fact that a single firm of cotton buyers usually purchases over three-fourths of the Carolina crop. Four firms of factors make practically all of the advances toward raising the crop. The firm of buyers and all four of the factors do their banking with the same institution. The cotton-buying firm is represented on the directorate of the bank. The potential power of a firm of cotton buyers in such a position is, of course, great; and it matters not how square the relation between the cotton buyer and the bank is or may have been, there are always many who will suspect that the firm's connection with the bank is being used to a selfish end.

Under ordinary conditions in the cotton trade, farmers would be in a position to meet such a situation by offering their cotton through other brokers or to other cotton buyers. But in Charleston this is

not an easy matter, as they deal in a specialized commodity which is taken chiefly by the export trade. Their product goes largely to the spinners of Europe, who are thoroughly organized; and when cotton is offered spinners direct they have replied, "Consult our agent in Charleston; he represents us." To ship Charleston cotton to other of the Sea Island markets would mean placing the "island" quality on a level with Georgias and Floridas and would result in a loss in price of 4 or 5 cents a pound on the basis of Charleston sales. Possibly the only feasible relief would be direct consignments of cotton which is free from debt to brokers in Liverpool. Such action might bring reasonable returns for the extra trouble, and at any rate would prevent a farmer from feeling that he was being imposed upon by a combination of buyer, banker, and factor.

CULTURAL METHODS EXPENSIVE.

The task system which has been the custom so long seems to be, as administered now, an unsatisfactory way of getting a day's work for a day's pay. Planters have asserted on more than one occasion that a laborer could finish his allotted task by 9 or 10 o'clock in the morning and was then idle for the rest of the day. Granting that work was commenced at 4 a. m., only six hours at the longest have elapsed before quitting time. Such a period is much shorter than for farm labor in other sections of the cotton belt and is inadequate to maintain the farm in a state of prosperity.

Another economic question is the excessive use of the hoe in making crops on the islands. Hand labor is expensive at best, and it would seem doubly so under the task system, resulting in excessive cost in producing cotton. This result is clearly shown in both the statements as to the cost of growing cotton by the pound and by the acre. Bearing on the same point, it may be said that in Georgia and Florida, where all cultivation except two hoeings is done with the plow, the cost of growing cotton is about two-thirds as great as it is on the islands where hand labor is so largely used. It is true that conditions on the islands are different from those in other parts of the Sea Island area, but it appears that it is certainly worth while to make a trial of substituting horsepower for human power in the growing of cotton.

TOO MANY KINDS OF COTTON.

The diversity of kinds of staples and differences in length seem detrimental to the best interests of the island farmers, yet such conditions have perhaps always existed on the islands, or at least since the special varieties of seed were propagated years ago by intelligent selection. There can be no objection to a few planters growing the extra-stapled Sea Island cottons if they choose to do so,

but it would not be advisable to increase the production of these extra staples under the present conditions. If all the farmers of any island would organize for the purpose of growing one variety on a cooperative community basis [1] and then keep their planting seed pure and the variety true to type, they would produce a product much better suited to the needs of a mill. Manufacturers could then rely on a supply of uniform quality and length and in sufficient quantities to make it worth while to turn their attention to it. To make such a scheme feasible it is necessary that the farmer having the most desirable cotton sell his seed to his neighbors until everyone is supplied.

Perhaps the most desirable length for Carolina growers to select is about $1\frac{7}{8}$ inches, as such a length would remove the islands from direct competition with $1\frac{5}{8}$-inch Georgias and Floridas. However, no exact information along this line has been obtainable, as the Carolina Sea Island is practically all exported, and this investigation has not extended to foreign mills and their requirements in cotton.

PROSPECTS AND ALTERNATIVE CROPS.

There are still good varieties of planting seed among the islands, there are expert cotton breeders, there are good judges of the length and fineness of lint, and there are many good farmers who, after a selection has been made, can grow successfully the selected variety. It seems that a trial along the line of uniform quality is worth while and is practically the only remedy that has suggested itself during the study of the Sea Island situation which holds out a hope for a successful continuation of production for this important crop.

In this connection, it is well to bear in mind that no new information has been gained by this investigation as to the probable price at which Sea Island will sell in the future. During August, 1913, the demand was dull and prices were at or under the cost of production. Styles must change or business revive before any great advance in price can reasonably be expected. And in the meantime the Sea Island farmers must live. They have "a heritage from their fathers which they are loath to relinquish," but it seems the part of expediency that they plant a large portion of their farms in food crops, set aside pasture lands, and pay more attention to beef cattle, hogs, and dairying. Truck farming, if proper shipping facilities can be arranged, would doubtless pay well. And while these other lines of agriculture are being tried out, a small amount of good land should be planted in an approved variety of Sea Island in order to keep pure seed for another crop in case the price again reaches a level

[1] Cook, O. F. Cotton Improvement on a Community Basis, Yearbook, U. S. Department of Agriculture, 1911. Brand, C. J. Improved Methods of Handling and Marketing Cotton, Yearbook, U. S. Department of Agriculture, 1912.

where it is profitable to grow Sea Island in its native home. But until that time does arrive, it is safest for the Carolina Sea Island planters to rely upon home-raised foodstuffs and necessities.

THE APPROACH OF THE BOLL WEEVIL.

The prospect for a continuance of Sea Island cotton as the money crop, not only of the islands but of portions of the mainland of South Carolina, and of Georgia and Florida as well, is rendered even more uncertain by the approach of the boll weevil. At its present rate of progress this pest will overrun the entire Sea Island area in from five to eight years. Those best posted on the nature and habits of this pest are agreed in saying that it may put an end to the profitable production of Sea Island cotton. Over this entire area the winters are especially mild, the atmosphere is humid, and the hibernating quarters abundant, all factors tending to increase the number of weevils. As Sea Island cotton requires a long growing season and matures late in the fall, it will be especially liable to damage from the ravages of this insect. It is none too early for the farmers, especially on the southwestern border of the belt, to begin looking for substitute crops for Sea Island.

CONDITIONS IN GEORGIA AND FLORIDA.

A study of the Sea Island situation in Georgia and Florida develops the fact that conditions are very similar in these two States, and they may therefore be considered together. Georgia perhaps grows its Sea Island somewhat more cheaply than Florida does, but the difference is so slight as to be negligible.

Florida was for many years the leading State in the number of bales produced, but since 1890 Georgia has taken the lead in production and now largely exceeds Florida and South Carolina combined.

In all three States the crops are made chiefly by negro labor, but in Bulloch County, Ga., especially, and to a less extent all over the Georgia area, white labor is largely used. Here farmers owning 1,000 acres or more go to the fields along with their wage hands and do the same work that they expect their employees to do, and see to it that they get the work for which they pay. About two thirds of the cultivated land is planted in cotton, the other third being devoted largely to corn, but some truck crops, especially watermelons, are grown. The farmers have corn and home-raised pork to sell and are self-confident and reasonably prosperous. They think that they can make a living out of Sea Island at 20 cents per pound, but that there would be no profit to them at such a price, and that it would be preferable to grow Upland cotton at 10 cents per pound rather than Sea Island at 20 cents.

UPLAND CROWDING OUT SEA ISLAND COTTON.

In most of the Georgia and in much of the Florida Sea Island area either kind grows well, but Upland is encroaching on Sea Island in every county in which both are being grown. The reasons usually given for this preference for Upland are that its yield is greater, that it is less easily ruined by storms, that it is much easier to pick and to gin, that there is always a ready market for it, that it is less exhaustive to land, and that upon the whole it is just about as profitable as Sea Island.

In both Georgia and Florida the Sea Island crop is made with the strictest economy in human labor, and, indeed, in some parts of Florida economy in labor is carried to the point of neglect. It seems that if crops there were worked better and fertilized more intelligently in some localities the yield would be so much higher that the costs of production per pound would be reduced. But in both States handwork such as found in South Carolina is unknown. Cotton is thinned with a hoe, or "chopped to a stand," and generally hoed once thereafter, but all the rest of the cultivation is with plows or cultivators, resulting in a decided cheapening of the cost of production.

INTERIOR MARKETING.

The system of business for the interior market is different from that prevailing at Charleston, or at Savannah, which resembles Charleston in organization. The interior markets are of comparatively recent growth and have few rules or traditions which must be complied with. In most of these markets some enterprising firm operates a modern gin. The firm buys the cotton in the seed wherever it is offered for sale and ships it to its ginhouse to be ginned and baled. It is then offered direct to spinners by the ginning company. In case the ginner receives orders for cotton he does not have, he either buys it from some farmer who owns a gin or on the Savannah market.

GOOD WORK OF GINNING COMPANIES.

The ginning companies have been of great assistance to farmers in getting new and improved seed for planting purposes. It has already been explained how difficult it has been to get new seed from the Carolina islands during the past few years, but the ginners of Georgia and Florida have secured the best seed obtainable under the circumstances and have distributed it among their farmer patrons. They have shown the proper appreciation of their situation and have endeavored to remedy it. It seems probable that they will soon find access to an ample supply of Carolina planting seed that will produce at least a 1⅝-inch staple of uniform length and of good strength.

MIXING SEED COTTON A PERNICIOUS PRACTICE.

There is a practice quite common in these two States, and perhaps in South Carolina also, of selling cotton in the seed in small quantities, even in basketfuls. These small lots are supposed to be graded while in the seed-cotton condition and then each grade or lot kept separate until it is ginned. If grading is ever attempted it amounts to little, and it has become the custom to put all the lots in one pile and to gin and bale it, indiscriminately, all at the same time. The resulting staple is mixed and far from desirable to a spinner, but, strange to say, such lots of cotton are frequently accepted by mills at a price equal to or but slightly less than a well-selected and carefully handled cotton could be bought for. Such a statement sounds incredible, but it shows how imperfect are the methods by which many mills determine the character of the cotton which they purchase. It is a confusing situation to both planters and factors and has unquestionably encouraged careless methods of handling cotton.

CONCLUSION.

In conclusion it may be said that it is certainly desirable to the farmer now growing Sea Island that it should continue to be one of his chief money crops, but only on the condition that it be a profitable one. It is likewise desirable to the American spinner that he should have a double source of supply for his raw material and that he should not be dependent on Egypt for all cottons of extra-long staple. This applies equally to foreign spinners who have not been lacking in appreciation of Sea Island extra staples. Thus, their interests being identical in regard to the desirability of continuing the production of Sea Island, it seems worth while to make an effort to reconcile differences and to reach a working agreement on a "live and let live" basis. In furtherance of this end it might be advisable for the farmers' organizations and spinners' association to each appoint a small committee to meet in conference at an early date and have a full and free exchange of views and each learn more of the conditions and needs of the other. Doubtless a better understanding could be reached, which would lead to mutual concessions and the forgetting of the deadlock of 1912–13, and the business of both planter and spinner might be greatly benefited by such an interchange of ideas.

APPENDIX.

TABLE I.—*Crops and prices of Sea Island cotton, 1865 to 1913, inclusive.*[1]

[These are average prices first cost Savannah for the average grade of Georgia and Florida cotton.]

Season.	Crop.					Price per pound.	Foreign exports.			American consumption.	Stock Aug. 31.
	Florida.	Georgia.	South Carolina.	Texas, etc.	Total.		Great Britain.	Continent.	Total exports.		
	Bales.	*Bales.*	*Bales.*	*Bales.*	*Bales.*	*Cents.*	*Bales.*	*Bales.*	*Bales.*	*Bales.*	*Bales.*
1912-13	20,147	39,557	8,376	.....	68,080	20	10,914	5,206	16,120	41,899	15,639
1911-12	42,484	75,138	5,122	.....	122,744	21	13,685	6,615	20,300	102,846	5,533
1910-11	28,849	45,646	13,416	.....	87,911	28	13,346	5,808	19,154	64,928	5,738
1909-10	28,711	53,124	14,821	.....	96,656	27	20,243	5,145	25,388	72,417	1,887
1908-9	39,045	46,983	15,392	.....	101,420	18	15,631	7,241	22,872	79,493	2,340
1907-8	27,993	44,694	12,691	.....	85,378	21	19,466	10,718	30,184	52,680	3,223
1906-7	20,170	29,413	8,037	.....	57,620	30	13,501	5,926	19,427	38,681	709
1905-6	42,437	67,215	13,712	.....	123,364	18	24,897	9,206	34,103	90,484	1,197
1904-5	32,026	58,471	12,171	.....	102,668	19	23,351	8,459	31,810	72,153	2,420
1903-4	28,005	39,345	9,359	.....	76,709	23	24,188	7,132	31,320	43,558	3,715
1902-3	27,686	62,451	12,497	.....	102,634	19	44,354	9,728	54,082	50,524	1,904
1901-2	21,323	48,538	8,760	.....	78,621	20	25,423	6,450	31,873	43,650	3,876
1900-1	24,793	52,953	8,369	.....	86,115	21	26,453	5,535	31,988	55,422	778
1899-1900	29,376	60,369	7,810	.....	97,555	15	38,279	8,007	46,286	49,543	2,073
1898-99	21,275	40,306	5,623	.....	67,204	11	26,451	9,015	35,466	38,654	347
1897-98	25,468	41,440	10,211	.....	76,119	12	33,303	8,827	42,130	34,140	7,263
1896-97	25,927	64,906	11,039	1,644	103,516	14	47,758	10,673	58,431	40,670	7,414
1895-96	21,664	64,522	10,010	991	93,187	16	42,391	7,672	50,063	40,530	2,999
1894-95	15,176	53,716	5,913	34	74,839	15	35,091	5,650	40,741	34,981	405
1893-94	19,107	39,367	2,578	.....	61,052	18	32,647	4,686	37,333	24,345	1,288
1892-93	9,685	28,324	7,413	.....	45,422	21	20,647	1,901	22,568	22,911	1,914
1891-92	20,628	27,100	11,443	.....	59,171	16	24,915	2,653	27,568	32,093	1,951
1890-91	25,320	26,531	16,267	.....	68,118	19	34,293	4,823	39,116	26,651	2,441
1889-90	25,111	12,431	9,299	.....	46,841	24	25,984	2,294	28,278	19,142	90
1888-89	26,909	7,462	9,552	.....	43,903	22	21,245	1,800	23,045	20,336	669
1887-88	24,753	6,254	8,564	.....	39,571	21	18,665	1,915	20,580	19,685	147
1886-87	30,991	6,411	7,735	.....	45,137	18	25,216	1,435	26,651	20,516	841
1885-86	24,272	6,390	7,010	.....	37,672	23	14,748	1,680	16,428	19,983	2,871
1884-85	24,987	3,075	12,863	.....	40,925	26	18,422	3,143	21,565	17,965	1,610
1883-84	14,073	2,956	8,415	.....	25,444	32	12,166	1,413	13,579	11,674	215
1882-83	18,054	3,126	15,715	29	36,924	26	21,565	1,892	23,457	13,573	24
1881-82	21,842	6,049	10,642	19	38,552	24	22,303	2,453	24,756	14,762	130
1880-81	18,410	3,179	14,845	8	36,442	28	20,259	4,136	21,395	11,270	1,096
1879-80	13,318	3,420	9,966	.....	26,704	28	13,729	3,294	17,023	9,389	319
1865-1879	131,651	61,703	102,984	3,974	300,312	.....	240,554	18,247	258,801	41,979	.....

[1] The Office of Markets is indebted to Messrs. Gordon & Co., of Savannah, Ga., for Tables I and II. Table I is presented in preference to the table by the Census Bureau, with which it is in substantial agreement, because it covers a much longer period of time than the census figures do. Table II gives greater detail than does any corresponding table issued by the Census Bureau.

TABLE II.—*Sea Island cotton statement from Sept. 1, 1912, to Aug. 30, 1913.*[1]

Receipts.	Crop, 1912–13.	Crop, 1911–12.
	Bales.	*Bales.*
Stock at Savannah and Charleston Sept. 1, 1912	5,533	5,738
Received at Savannah, net	38,533	62,926
Received at Charleston	8,375	5,122
Received at Jacksonville	11,780	47,755
Received at Brunswick	1,956	899
Received at southern mills from interior, taken from advance sheets Cotton Record	7,436	6,042
Total	68,080	122,744
	73,613	128,482

Shipments.	To domestic mills.	To Great Britain.	To Continent.	Total.
	Bales.	*Bales.*	*Bales.*	*Bales.*
From Savannah	18,886	8,977	2,076	29,939
From Charleston	1,841	1,937	3,130	6,908
From Jacksonville	11,780	.....	.....	11,780
From Brunswick	1,956	.....	.....	1,956
From interior	7,436	.....	.....	7,436
Total	41,899	10,914	5,206	58,019
Same time last year	102,846	13,685	6,615	123,146
Decrease	60,947	2,771	1,409	65,127

Stocks, August 30.	1913	1912
	Bales.	*Bales.*
In Savannah	13,717	5,078
In Charleston	1,922	455
Total	15,639	5,533

[1] See footnote to Table I.

TABLE III.—*Estimated average grade of Upland cotton, and average price of Upland, Sea Island, and Egyptian cotton.*[1]

Growth year.	Estimated average grade of Upland cotton.	Average price of cotton fiber per pound (cents).				
		Upland.	Sea Island.			Egyptian.
			Florida.	Georgia.	South Carolina.	
1912	Middling to strict middling	12.05	19.50	19.50	25.00	19.76
1911	Strict low middling to middling	9.69	20.41	20.41	23.73	18.75
1910	Strict middling	14.69	27.36	27.36	35.62	22.25
1909	do	14.29	27.10	27.10	32.85	20.50
1908	do	9.24	17.92	17.92	23.39	17.25
1907	Middling	11.46	24.27	24.27	35.59	21.00
1906	Strict low middling	10.01	28.65	28.65	36.70	20.00
1905	Fully middling	10.94	17.50	17.50	26.38	19.00
1904	Strict middling	8.66	19.50	19.00	27.12	15.00
1903	do	12.16	23.60	21.00	28.40	17.75
1902	Strict low middling	8.20	20.00	17.00	25.00	15.50

[1] U. S. Department of Commerce, Bureau of the Census, Bulletin 116, p. 19.

TABLE IV.—*Net imports of raw cotton, by countries from which imported, for the year ending Aug. 31, for specified years: 1895 to 1913.*[1]

Year.	Net imports of raw cotton (equivalent 500-pound bales).				
	Total.	Imported from—			
		Egypt.	United Kingdom	Peru.	All other countries.
1913	225,460	182,238	8,071	10,300	24,851
1912	229,268	175,835	27,049	9,201	17,183
1911	231,191	183,786	9,717	10,221	27,467
1910	151,395	102,217	19,435	12,076	17,667
1909	165,451	129,985	15,722	13,508	6,236
1908	140,869	120,187	13,741	5,586	1,355
1907	202,733	169,731	22,493	8,564	1,945
1906	133,464	103,669	20,176	7,440	2,179
1905	130,182	108,283	14,723	5,941	1,235
1900	134,778	106,166	21,810	5,116	1,686
1895	99,399	59,864	36,213	2,335	987

[1] U. S. Department of Commerce, Bureau of the Census, Bulletin 117, p. 9.

TABLE V.—*Quantity of kinds of raw cotton consumed and of stocks held in manufacturing establishments: 1911, 1912, and 1913.*[1]

[Quantities are given in running bales, except that round bales are counted as half bales and foreign cotton in equivalent 500-pound bales. Linters are included.]

Kind and locality.	Raw cotton consumed during year ending Aug. 31 (bales).			Stocks held in manufacturing establishments on Aug. 31 (bales).		
	1913	1912	1911	1913	1912	1911
United States	5,786,330	5,367,583	4,704,978	778,158	870,646	542,191
Domestic:						
Upland	5,195,614	4,826,827	4,258,750	619,200	709,495	398,065
Sea Island	54,778	94,856	64,237	18,525	23,753	19,280
Linters	303,009	238,237	206,561	60,454	52,622	43,422
Foreign:						
Egyptian	201,269	180,465	147,192	70,859	77,029	70,678
Peruvian	10,341	8,539	8,903	1,044	1,482	1,456
Indian	2,412	6,842	9,793	673	3,806	3,909
Other	18,907	11,817	9,542	7,403	2,459	5,381
Cotton-growing States	2,960,518	2,712,223	2,328,487	234,509	241,611	101,114
Domestic:						
Upland	2,834,732	2,609,369	2,230,225	210,883	224,730	83,103
Sea Island	12,696	11,112	7,987	2,664	1,916	655
Linters	98,775	76,345	79,352	15,325	11,508	11,980
Foreign:						
Egyptian	10,051	12,557	6,578	4,053	2,767	4,644
Peruvian	6	----	----	4	----	----
Indian	475	285	2,092	353	4	222
Other	3,783	2,555	2,253	1,227	686	510
All other States	2,825,812	2,655,360	2,376,491	543,649	629,035	441,077
Domestic:						
Upland	2,360,882	2,217,458	2,028,525	408,317	484,765	314,962
Sea Island	42,082	83,744	56,250	15,861	21,837	18,625
Linters	204,234	161,892	127,209	45,129	41,114	31,442
Foreign:						
Egyptian	191,218	167,908	140,614	66,806	74,262	66,034
Peruvian	10,335	8,539	8,903	1,040	1,482	1,456
Indian	1,937	6,557	7,701	320	3,802	3,687
Other	15,124	9,262	7,289	6,176	1,773	4,871

[1] U. S. Department of Commerce, Bureau of the Census, Bulletin 117, p. 14.

WASHINGTON : GOVERNMENT PRINTING OFFICE : 1914